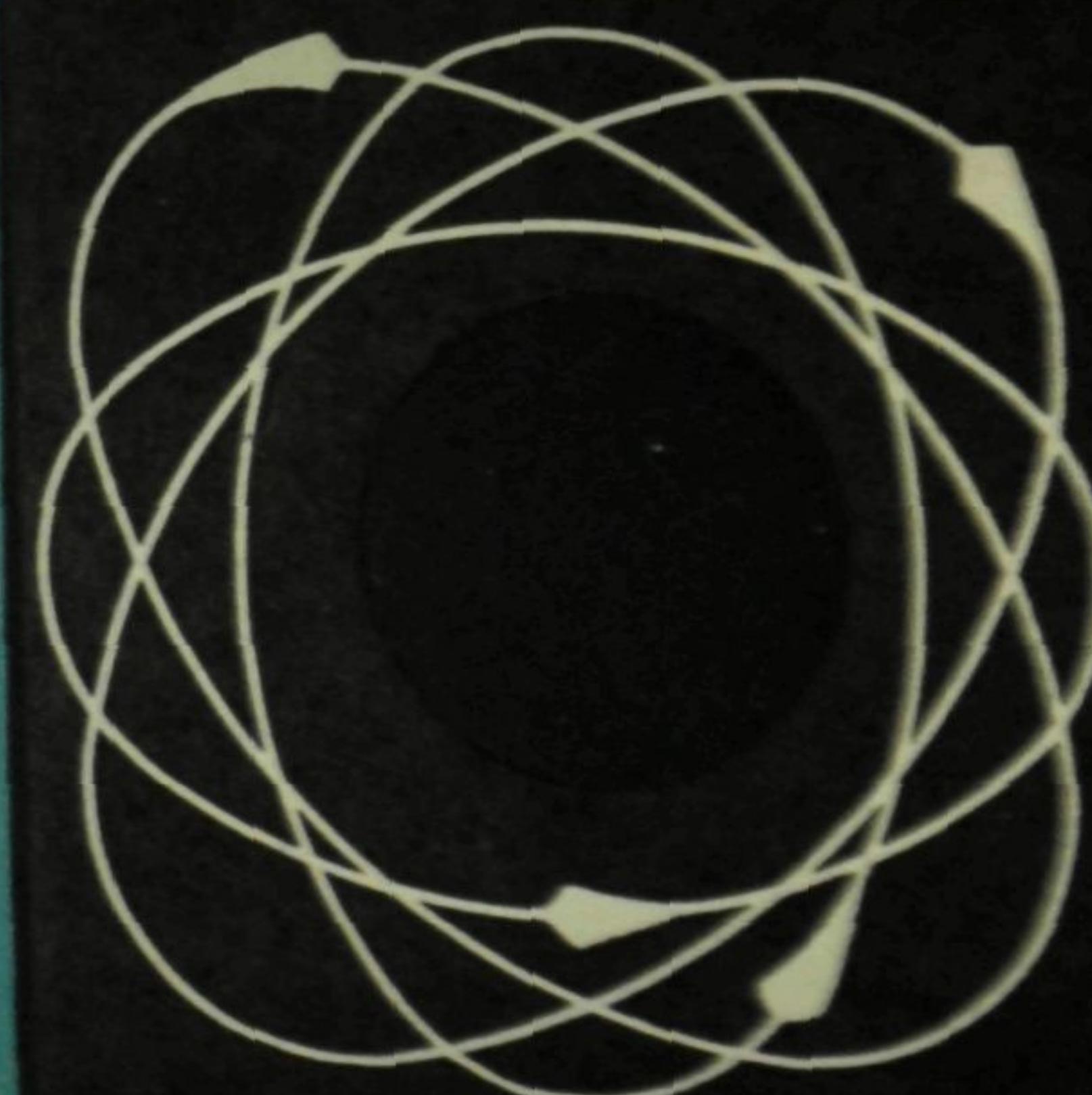
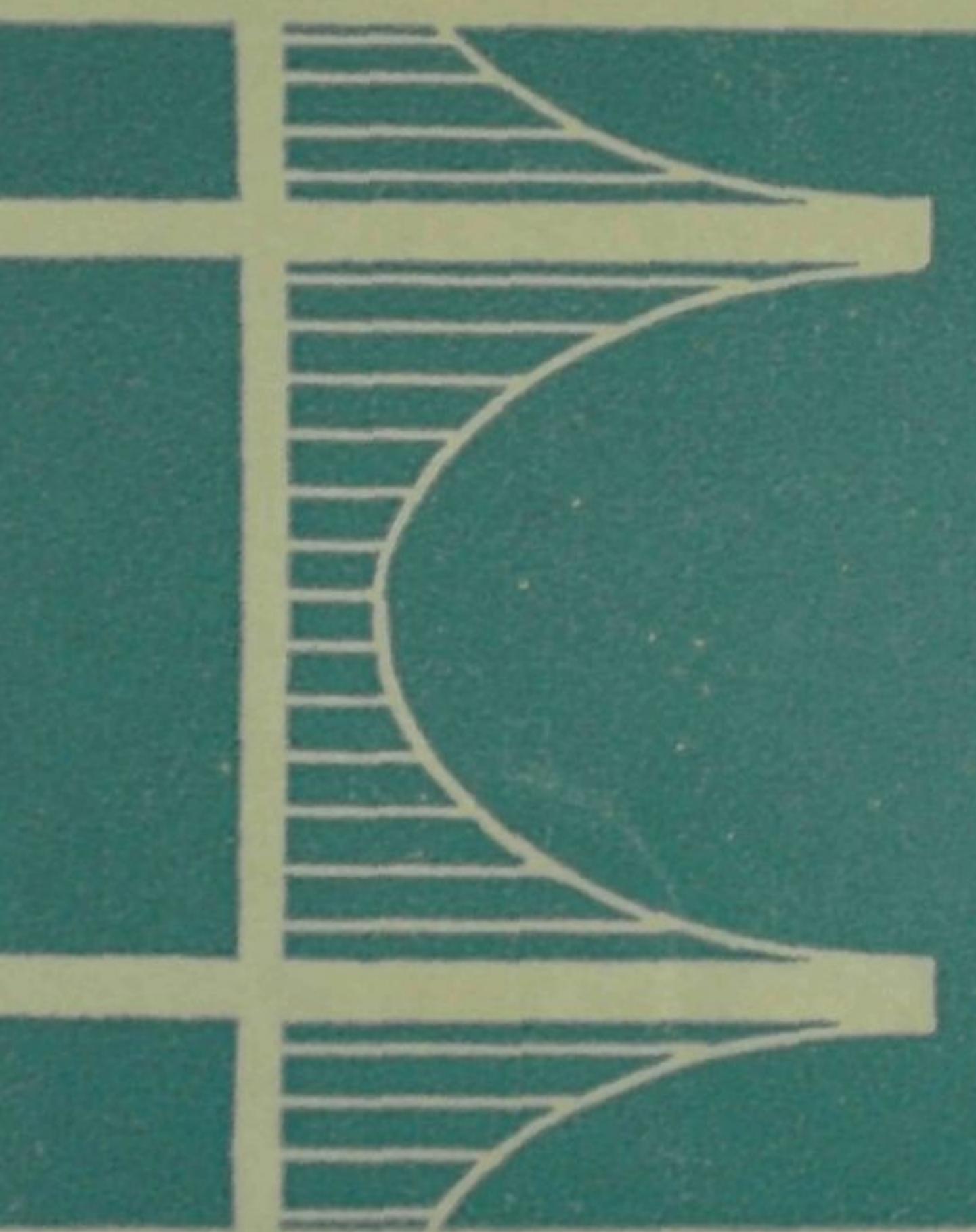


ENGINEERING OPEN HOUSE

1958



FRIDAY

March 14

10 a.m.-9 p.m.

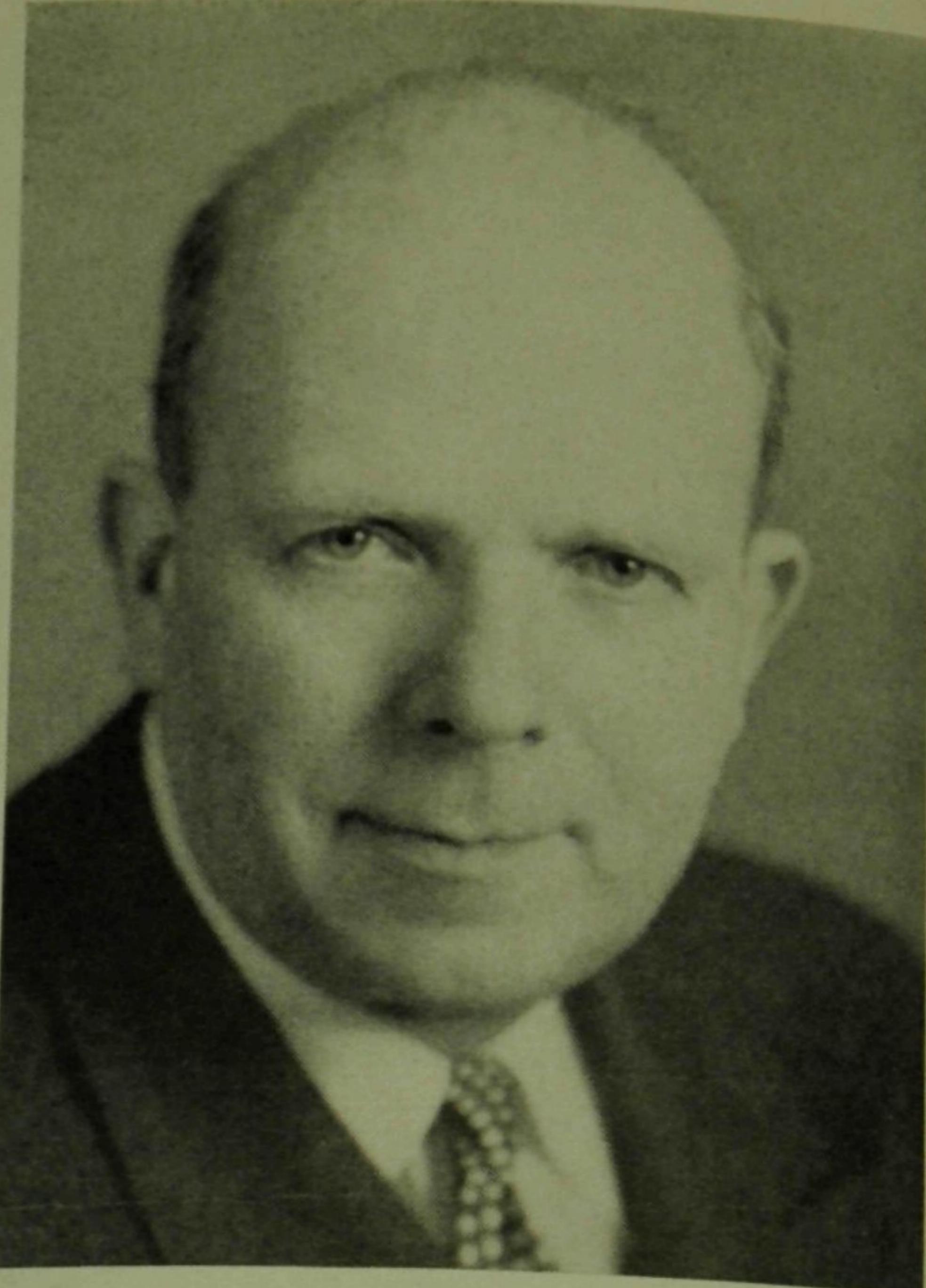
SATURDAY

March 15

9 a.m.-5 p.m.



**WELCOME
TO
OPEN
HOUSE!**



Greetings from all of us in the College of Engineering! Each year we enjoy this opportunity to show you what students in engineering do, and give you some insight into how they are educated.

With the displays of teaching methods and facilities, you are, of course, seeing the "lighter side" of professional education. The planning and execution of these exhibits represent major additions to a heavy study load. For their efforts, we are indebted to the Student Coordinating Committee, the Student Societies, Departmental Advisors, and other students and faculty members who have given full support.

The advent of the "space age" has confirmed the demand for engineers and scientists, placing increased emphasis on quality rather than quantity. The intensified need for the scientist-engineer, who possesses knowledge of both basic and engineering sciences, finds us at Urbana establishing new curricula and new programs and revising others. We hope that these displays will help you realize the changes constantly taking place in engineering as a leading force of our society today.

Especially we would like you to be aware of the breadth and diversity of our resources here, and the hundreds of projects we are pursuing for the benefit of our State and Nation. You are welcome visitors, both as friends of engineering and as citizens of Illinois. We wish you a pleasant, informative, and profitable stay.

Sincerely,

A handwritten signature in black ink, appearing to read "W. L. Everitt".

W. L. EVERITT
Dean

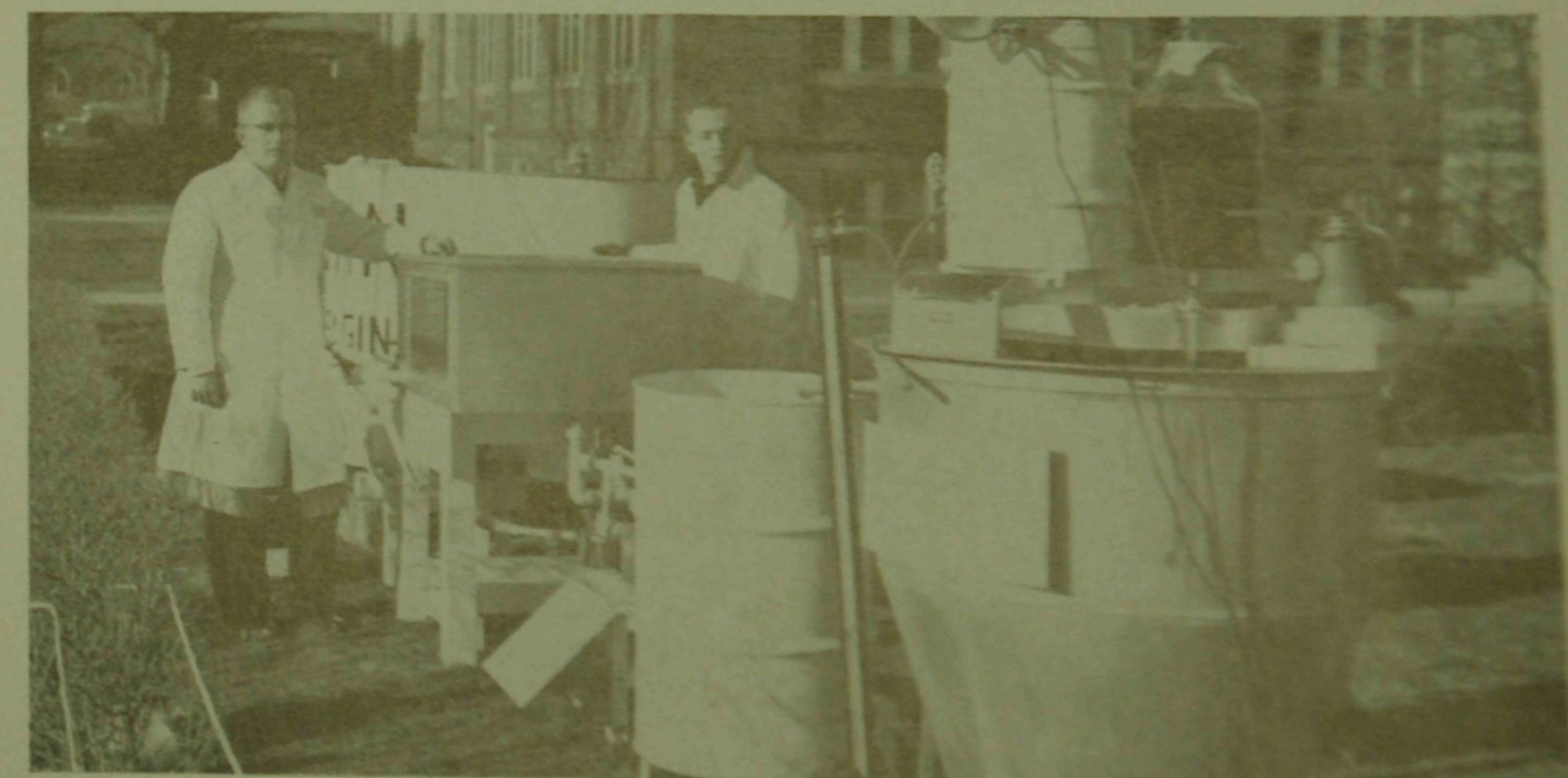
TIME OF OPERATION — The Open House will be held from 10 a.m. to 9 p.m., Friday, March 14 and from 9 a.m. to 5 p.m., Saturday, March 15.

INFORMATION — The Headquarters for Engineering Open House is on the first floor of Civil Engineering Hall. Guided tours of the Open House will originate from this office periodically.

PARKING — Free parking will be allotted all the visitors of Engineering Open House. Visitor Parking Permits will be available at Open House Headquarters on the first floor of Civil Engineering Hall.

FOOD SERVICE — The cafeteria in the basement of the Illini Union serves lunch from 11:30 a.m. to 1:15 p.m., and the soda fountain is open from 2:00 to 4:30 p.m. The serving line is shortest after 12:20. The Bevier Hall cafeteria (New Home Economics Building) will be open on Friday only from 11:30 to 12:30. In addition, there are many restaurants in the campus business district.

CAMPUS TOURS — Through the cooperation of the Illini Union, guided tours of the campus will leave room 114 Civil Engineering Hall between 1:00 and 4:00 p.m. both Friday and Saturday. These tours will be about one hour in length and will include the quadrangle and a brief visit to either a men's or women's residence hall.



Sanitary Engineers Purify the Boneyard

AERONAUTICAL ENGINEERING

Aero. Lab. A and B

HIGH SPEED WIND TUNNEL
SHOCK TUBE
RAM JET
ROCKET ENGINES
TURBOJET ENGINE
TURBOPROP ENGINE
PULSE JET
AIRFRAME TESTING
PHOTOELASTIC TEST
FLUTTER
VARIABLE-PITCH PROPELLER
SMOKE-FLOW TUNNEL
DISPLAY OF FLIGHT REGIME PROBLEMS
PLASMA-JET GENERATOR
LINK TRAINER

AGRICULTURAL ENGINEERING

South West Corner of Mechanical Engineering Laboratory

M & W DYNAMOMETER — Measure tractor horsepower
PISTON PRESSURE MEASUREMENT
ENGINEERING DEVELOPMENT OF TILE DRAINAGE TECHNIQUES
DEVELOPMENT OF NEW FARM STRUCTURES
MODERNIZATION OF FARM STRUCTURES
PNEUMATIC FEED MOVEMENT
HEAT PUMP — Crop drying

CERAMIC ENGINEERING

Ceramics Building

ELECTRICAL PORCELAINS
GLASS TECHNOLOGY AND USES
MOVIES OF THE CERAMIC INDUSTRY
NUCLEAR CERAMICS
PORCELAIN ENAMELS
REFRACTORIES IN INDUSTRY

Ceramic Engineering (continued)

SMELTING OF CERAMIC RAW MATERIALS
STRUCTURAL CLAY PRODUCTS
WHITEWARE PRODUCTION
WHITEWARES IN THE HOME

CHEMICAL ENGINEERING

East Chemistry Building

UNIT OPERATIONS AND EQUIPMENT — Unit operations laboratory, Room 8
SENIOR AND GRADUATE RESEARCH PROJECTS — Room 194
CARBONATION OF "CHEM-POP"
ION EXCHANGE DEMONSTRATION
PRELIMINARY ORE TREATMENT
RADIOCHEMISTRY
ROTARY FILTER
ALL-GLASS DISTILLATION UNIT
CHEMICAL MAGIC SHOW — Room 116, every hour on the hour



Unit Operations Laboratory in East Chemistry Building

CIVIL ENGINEERING

Civil Engineering Hall

TRAFFIC STUDY MAPS

MODEL OF HIGHWAY CONSTRUCTION ON CHICAGO'S HALSTED STREET
INTERCHANGE

MOVIES — Including film on Mackinac Straits Bridge

ACTUAL CONSTRUCTION EQUIPMENT DISPLAY

WATER TREATMENT PLANT IN ACTION

MODEL OF WATER AND SEWAGE FACILITIES OF AN AVERAGE TOWN

SURVEYING INSTRUMENTS DISPLAY

DEVELOPMENT OF TOPOGRAPHIC MAP BY AERIAL PHOTOGRAPHY

HYDRAULICS EXHIBITS AND DEMONSTRATIONS

EXAMPLES OF CLASSROOM ACTIVITY

ILLINOIS CENTRAL RAILROAD EQUIPMENT — Diesel Locomotive, Standard Coach, Dynamometer Car, Caboose, Road Bed Equipment.

The railroad equipment is located on the University siding near Abbott Power Plant at the Stadium Drive underpass. Free bus service to the Railroad Exhibit and the Betatron leaves every half hour from the corner of Burrill and Green streets (near Civil Engineering Hall).

Talbot Laboratory

DISPLAY DEPICTING THE STRUCTURAL ENGINEER IN THE AIRCRAFT AND
MISSILE INDUSTRY

EXAMPLES OF STRUCTURAL RESEARCH IN THE CIVIL ENGINEERING
DEPARTMENT

ELECTRICAL ENGINEERING

Electrical Engineering Building

DESIGNS IN MATHEMATICS — Room 59

PRACTICAL POWER — Room 50

TELEPHONE DISPLAY — Room 50

MOVIES

Careers in Engineering (On the Hour)

Neurosonic Surgery (On the Half Hour) — Room 138

LIGHT AT WORK — Room 151

Electrical Engineering (continued)

HIGH FIDELITY — Lounge, Room 165

DO YOU REMEMBER? — Room 265

CREATION THROUGH ENGINEERING — Rooms 251, 246, 240

WHAT'S IN A COURSE E.E. 353 — Room 245

WPGU ON THE AIR (Student Radio on Campus) — Room 241

GENERAL ENGINEERING

Transportation Building

HISTORY OF ENGINEERING

CAREERS IN ENGINEERING JOURNALISM AND SALES

BUSINESS AND GEOLOGY


ENGINEERING LAW

DESCRIPTIVE GEOMETRY

MACHINE DRAWING



This 28-Foot Parabolic Antenna Receives Signals Bounced from the Moon
in a Study of the Ionosphere



General Engineering (continued)

AIRCRAFT DRAFTING AND LOFTING
GRAPHICAL COMPUTATION METHODS
PERSPECTIVE DRAWING
LETTERING MACHINES
ELLIPSE MACHINE
ENGINEERING ILLUSTRATION — Axonometric Projection Boards, Air
Brush, Zipatone, Doubletone

MECHANICAL ENGINEERING

Mechanical Engineering Building

HEAT TREATMENT OF METALS — 1st. floor
WELDING LABORATORY — 2nd. floor
METAL CUTTING RESEARCH — 2nd. floor
MECHANICS OF MACHINERY DISPLAY — 3rd. floor
INTERNAL COMBUSTION ENGINES — 1st. floor
MOVIES — Room 110

Foundry Building

FOUNDRY DEMONSTRATIONS

Mechanical Engineering Laboratory

MECHANICAL ENGINEERING HEAT AND POWER LABORATORY

METALLURGICAL ENGINEERING

Metallurgical Engineering Laboratory

CORROSION IN ACTION
GALVANIC CELLS
ELECTRO-PLATING
METALLOGRAPHIC AND DARKROOM EQUIPMENT
MICROSTRUCTURES OF METAL
THERMOCOUPLE DEMONSTRATION
STEEL PHASE TRANSFORMATION
HEAT TREAT DEMONSTRATION
RESEARCH AND DEVELOPMENT PROJECTS

MINING ENGINEERING

Mining Engineering Laboratory

MINERAL ECONOMICS — Location and value of Illinois minerals
GEOPHYSICAL PROSPECTING EQUIPMENT — Including Fully Equipped
Field Truck
AUTOMATIC HOISTING
SLUSHER LOADING
VENTILATION DISTRIBUTION AND CONTROL
ROOF CONTROL BY BOLTING
GAS TESTING
ORE BENEFICIATION EQUIPMENT
WORKING MODEL OF AN OIL FIELD



ILLIAC, a High-Speed Electronic Digital Computer

PHYSICS

Physics Building

MECHANICS — Demonstrations of motion as it is in outer space
NUCLEAR PHYSICS
LOW TEMPERATURES — 300° below zero
LIGHT

Physics Research Building

BETATRON — 300-million volt accelerator
Free buses to the Betatron will leave from Civil Engineering Hall
every half hour.

DIGITAL COMPUTER LABORATORY

Engineering Research Laboratory

OPERATION OF A HIGH-SPEED ELECTRONIC DIGITAL COMPUTER, THE
ILLIAC — Demonstrated as interest demands
COMPUTER COMPONENTS

AIR FORCE R.O.T.C.

Mechanical Engineering Building

ENGINEERING MOCK-UPS AND DISPLAYS OF AIRCRAFT
AFROTC INFORMATION

ARMY R.O.T.C.

Mechanical Engineering Building

Corps of Engineers

BRIDGING — Fixed and Floating Bridge Models

DEMOLITION — Procedures and Explosives Models

ENGINEERING PROJECTS DISPLAY — Construction equipment models, pu-
rification of radioactive water

SOCIETY OF AMERICAN MILITARY ENGINEERS ACTIVITIES

Ordnance

DISPLAY OF ORDNANCE EQUIPMENT

81 MM. MORTAR

Signal Corps

PORTABLE TWO-WAY RADIOS

TELEPHONES FOR VARIOUS PURPOSES

TELETYPE

SWITCHBOARDS

Army ROTC Information

NAVAL R.O.T.C.

Mechanical Engineering Building

BOMB, GUN, AND GUIDED MISSILE TYPE AMMUNITION
"G" SUIT

MODELS OF NAVAL MACHINERY — Propulsion Plants (Nuclear and Con-
ventional) and other equipment used aboard Naval Vessels

MODEL SHIPS

NAVY MOVIES

THEORETICAL AND APPLIED MECHANICS

Talbot Laboratory

VIBRATING BODIES AND VIBRATING MEASURING INSTRUMENTS — Room
220

FATIGUE OF METALS — Room 225

HYDRO-ELECTRIC PLANT IN OPERATION — Room 126

WIND EFFECTS ON A MODEL HOME — Room 126

HYDRAULIC PUMP DEMONSTRATION — Room 125-126

STRAIN GAGES — Room 220

A CLASS IN SESSION — Room 225

10-12 a.m., 1-3, 3-5, and 7-9 p.m. Friday

10-12 a.m. and 1-3 p.m. Saturday

CONCRETE CYLINDER COMPRESSION IN A 3 MILLION POUND TESTING
MACHINE — Crane Bay

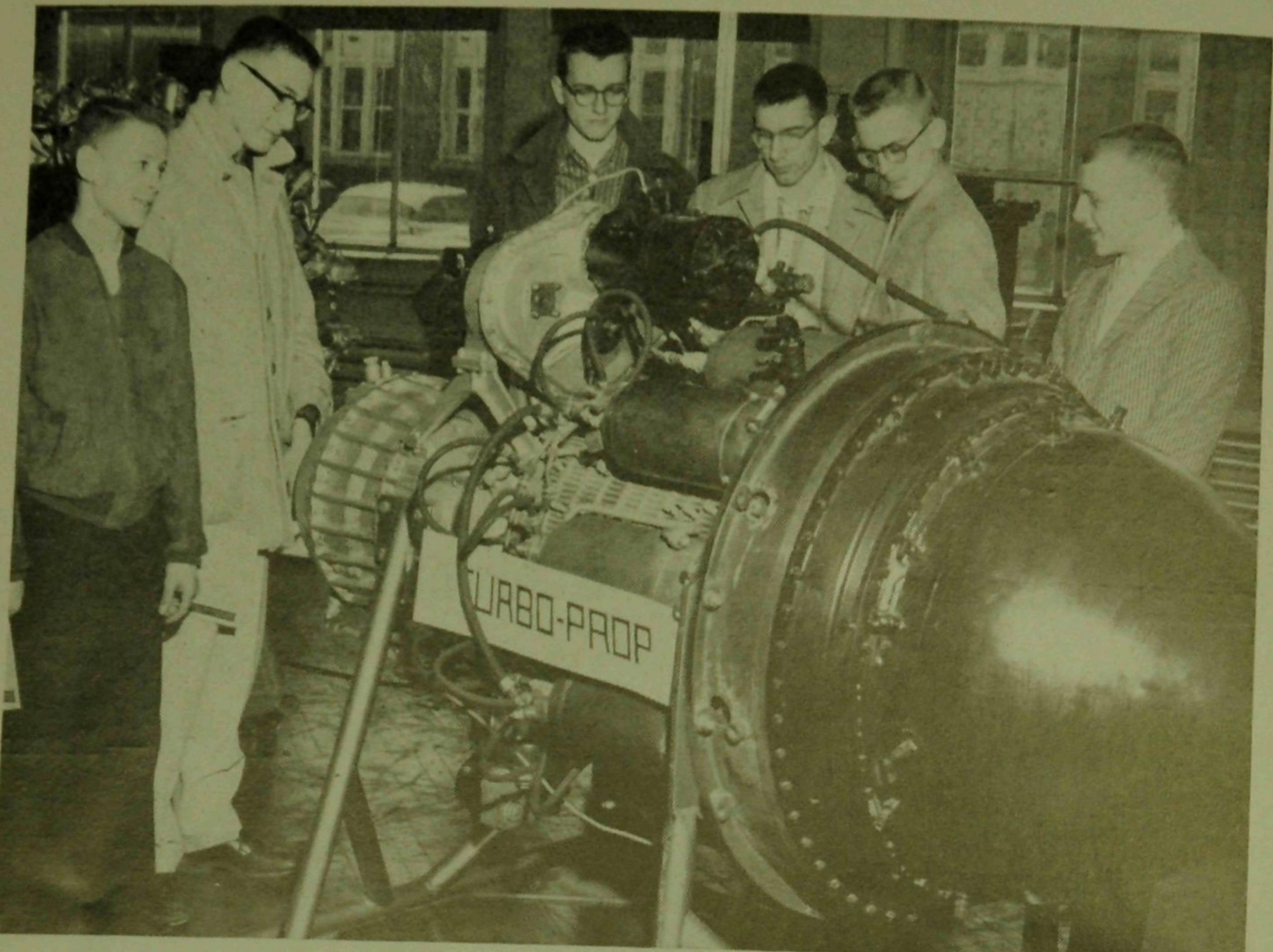
11 a.m., 2, 4, 7, 9 p.m. Friday

10 a.m., 1:30, 3:30 p.m. Saturday

The T & A M Department Wishes to Announce the

NEW CURRICULUM IN ENGINEERING MECHANICS

The Department of Theoretical and Applied Mechanics is introducing a new course of study beginning in September, 1958, leading to the Bachelor of Science degree in Engineering Mechanics. The courses are oriented for the student to obtain great depth of understanding of the basic sciences (mathematics, physics, chemistry) and the engineering sciences (mechanics of solids, fluid flow, thermodynamics, etc.) and to gain some insight and skill in the application of these sciences to engineering problems. Additional information is available in room 220.



Open House Visitors Inspect a Cutaway Aircraft Engine

ST. PAT'S BALL

On the evening of March 15, following the completion of Open House, the College of Engineering will hold its annual St. Pat's Ball. St. Pat himself will be there to bestow the title of "Knight of the Order of St. Pat" upon deserving seniors. The dance is to be held from 9 to 12 p.m. at Huff Gym. Tickets can be purchased at the Illini Union box office.

... AND FINALLY, OUR THANKS

An event as extensive as Engineering Open House would be impossible without the untold hours of work by many individuals. We wish to thank them all—Faculty, Central Committeemen, Committee Chairmen, and Students.

We also wish to thank you for visiting the Open House. It was a pleasure to have you as our guests.

JOHN J. BRENNAN
General Chairman

OPEN HOUSE PERSONNEL

GENERAL CHAIRMAN

John Brennan

Ronald Larson

Jesse Riggs

Loren Sanders

Robert James

Bruce Beyaert

Ralph Gee

Ronald Lawwill

William Corley

John Lane

Donald White

Richard Buesinger

David Clay

John Morse

Rich Gordon

Neil Felmus

FACULTY ADVISORS

W. L. Shick

J. R. Carroll

G. R. Eadie

L. J. Koester

M. S. Peters

H. B. Puckett

G. A. Wempner

Capt. S. W. Franklin

R. J. Beals

A. S. Chodakowski

H. H. Hilton

J. L. Merritt

W. H. Munse

B. G. Ricketts

Lt. (jg) G. J. Miller

Capt. N. R. Kohn

L. D. Fosdick

PUBLICITY COMMITTEE

Dave Kamm, Chairman

Dick Northrup

Sue Siudzinski

Bob Wieneke

PHYSICAL ARRANGEMENTS

Adrian Crook, Chairman

Jim De Pauw

Bob Gibson

COORDINATING COMMITTEE

Martin Chergosky, Chairman

Robert Strain

Dean M. Peterson

George Gunderson

Peter Nikias